

BLACK SOLDIER FLY STEAM PROJECT

FOOD WASTE MAGICIAN CERTIFICATE PROGRAMS



COURSE OUTLINE



INFO@BSFI.LTD

COURSE OUTLINE

Course Syllabus		2 hours	16 hours	36 hours
		Farm	Farm + School	Farm + School
Number of participants per class		10-20	15-20	15-20
1	Understanding food waste and garbage issues - Related topics: - Waste disposal; waste sorting; waste recycling; waste collection - Food waste disposal; food waste sorting; food waste recycling	About 0.5	About 1.5	About 1.5
2	Biology x Intelligent Learning - Understanding Internet of Things (IoT) - Introduction to Connect+ BSF Breeding Box - Experience how black soldier flies decompose food waste - Observe and record the growth of black soldier flies (date, length, net weight and feeding speed, as well as the date, time, type, temperature, moisture content and weight of the food waste fed) - Extracting data to understand and interpret the growth of black soldier flies - Adjust the optimal breeding environment based on the data until the adult worms emerge 10 to 20 days later	About 0.5	About 1.5	About 1.5
3	Become a smart farmer - Understand the characteristics, formation process and factors conducive to the formation of black soldier flies - Understanding the habitat of black soldier flies [Describe the global distribution and status of black soldier flies] - Understand the benefits that the black soldier fly farming and food waste treatment industries bring to humans - Black soldier fly breeding experiment - Watch the online video on black soldier fly farming		About 1.5	About 1.5
4	Understanding the Concept of Sustainable Development and Carbon Neutrality – Understanding ESG - Understanding ESG - Understanding the Paris Convention - Greenhouse gases and their formation - The impact of greenhouse gases on the Earth - Carbon and Waste Reduction Plans in Hong Kong		About 1.5	About 1.5

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5	Technology Application and Sustainable Development - IoT and Sensor Basics - Getting Started with Micro:bit (MakeCode) Sensors - Sensor data upload to cloud service - Programming and data transmission - Automated environmental control - Sensor monitoring weight application			About 16
6	Enterprises and SDGS - The 17 elements of the United Nations Sustainable Development Goals (SDGs) - Business and SDGs status		About 1.5	About 1.5
7	Become a food waste magician, our black soldier fly farm - Understand food waste collection and feed types - Understand the operation process of converting food waste into feed - Explore the food waste treatment situation in other countries - On-site interactive visit (Yuen Long food waste treatment and black soldier fly breeding farm)		About 1.5	About 1.5
8	Black soldier fly breeding experiment and fertilizer research - Characteristics of food waste converted into fertilizer - Black Soldier Fly frass fertilizer, the making of - How Black Soldier Fly frass fertilizer becomes an alternative to conventional organic fertilizer		About 1.5	About 1.5
9	Course Reflection - Sharing learning outcomes - Reflect on daily diet and food waste issues - Share your experience on converting food waste into animal feed - Share/reflect on how to be environmentally friendly in daily/campus life (e.g., environmentally friendly eating) - Apply the knowledge and skills learned in the course to propose campus environmental protection plans		About 1.5	About 1.5
10	Black Soldier Fly Farm Visit and Experience	About 1	About 4	About 8
	Course includes (Connect+BSF Breeding Box, Graduation Certificate)		 	

36-HOUR COURSE INCLUDES

Food Waste Magician Certificate

(Required to attend and
complete 36 hours of
course)



16/36 HOUR COURSE INCLUDES

Connect+BSF Black Soldier Fly Breeding Box

- Uniquely designed for breeding black soldier flies.
- Includes black soldier fly larvae to ensure decomposition speed.
- Automatic separation of pre-pupae.
- Temperature and humidity sensors.



Get in touch directly

